

Academy of Computer and Information Technology

Westlake High School

Introduction to Java Programming - Honors

Course Syllabus

Course Number 179015

INSTRUCTOR

Joe Greenawalt – Technology Coordinator/Computer Science Resource Teacher

COURSE DESCRIPTION

This course provides an introduction to Java Programming. Topics include creating a Java application and applet, manipulating data using methods, decision making and repetition with reusable objects, arrays, loops, and layout managers using external classes, creating menus and button arrays using the abstract windows, swing interfaces with sorting and searching, writing data to a sequential data file, and accessing databases using JDBC.

Topics also include an introduction to IBM's Eclipse IDE and Cloudscape database.

TEXTBOOK

Java Programming: Comprehensive Concepts and Techniques, Second Edition
Shelly Cashman Starks Mick (ISBN: 0-7895-6833-0)

GRADING

Grades will be assigned based on the following weighted scale:

Tests/Quizzes	40%
Programming Projects	40%
Class work	10%
Participation	10%

Extra credit opportunities will be considered only if the assignment is offered to all students.

Tests/Quizzes

Tests and Quizzes include both written tests and programming tests. Tests are worth 100 points each and quizzes worth 20 points each.

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University System of Maryland: Minimum Qualifications For Regular Admission

The following high school course-work requirements apply to students seeking admission to four-year public colleges and universities in Maryland.

Subject

- English – 4 credits
- Social Science/History – 3 credits
- Mathematics (Algebra I, Geometry, Algebra II) – 3 credits
- Biological and Physical Sciences (two must be lab sciences) – 3 credits
- Languages (other than English) – 2 credits of the same language

Each institution shall publish its own decision criteria, which may be more rigorous than the system-wide requirements listed above. Additionally, individual schools may choose to accept advanced technology coursework in lieu of the foreign/world language requirement.

All students are encouraged to exceed the minimum entrance requirements by taking honors or Advanced Placement (AP) courses, as well as additional academic electives including a fourth year of mathematics and a third laboratory science.

COURSE POLICIES

Internet Contract

Each student will have received a copy of the **Acceptable Use Policy, Internet Contract for Secondary School Students** in their student handbook on the first day of school. It is very important that both students and parents become familiar with the policy, and that the policy is signed and returned immediately. Violations of the contract can result in a student's loss of computer privileges throughout the entire school.

Students are not permitted to use the Internet without the express approval of their instructor.

Attendance

The school system's attendance policy will be enforced in my classroom. Students who have missed tests, quizzes or assignment due dates will be permitted to make up their work as long as they have provided an excused absence slip. They will receive a grade of "0" until the absence is excused.

Extra Credit

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You may complete any Programming Assignment exercise not already assigned at the end of a unit for 5 points to help compensate for a poor test grade. Extra credit will not be accepted until all assigned work is complete.

Cheating Policy

Students are expected to uphold the school's standard of conduct relating to academic honesty. Students assume full responsibility for the content and integrity of the academic work they submit. The guiding principle of academic integrity shall be that a student's submitted work, examinations, reports, and projects must be that of the student's own work. Students shall be guilty of violating the honor code if they:

1. Represent the work of others as their own.
2. Use or obtain unauthorized assistance in any academic work.
3. Give unauthorized assistance to other students.
4. Modify, without instructor approval, an examination, paper, record, or report for the purpose of obtaining additional credit.
5. Misrepresent the content of submitted work.

The penalty for violating the honor code is severe. Any student violating the honor code will receive a failing grade for the work in question and referral to the administration for further discipline.

Unit	Reading Assignment	Expected Laboratory Assignments	Test Points
Marking Period 1			
1.1	Chapter 1 – An Introduction to Java Program and Design	Chapter 1 Programming Assignments 1 (modified) and 4, beginning on page 1.37	35
1.2	Chapter 2 – Creating a Java Application and Applet	Chapter 2 Debugging Assignment on page 2.75, and Programming Assignments 1, 3, 5, 4, 6, 7, 10, 11 and 12, beginning on page 2.76.	40
1.3	Chapter 3 – Manipulating Data Using Methods	Chapter 3 Programming Assignments 3, 5, 6, 7 (requires storyboard), 8, 9 (console input required), and 10 (user choice for input) beginning on page 3.80.	50
County Programming Exam 1			100

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Marking Period 2			
2.4	Chapter 4 – Decision Making and Repetition with Reusable Objects	Chapter 4 Programming Assignments 1, 2, 3, 4, 5, 12 and 14, beginning on page 4.79.	60
2.5	Chapter 5 – Arrays, Loops, and Layout Managers Using External Classes	Chapter 5 Programming Assignments 2, 3, 4, 5 and 6.	50
County Programming Exam 2			100
Marking Period 3			
3.0	Introduction to Eclipse	Import 3 Projects to Eclipse. Programming Problems 1 - 9.	
3.6	Chapter 6 – Creating Menus and Button Arrays Using the Abstract Windows Toolkit	Chapter 6 Programming Assignments 1 - 6	52
3.7	Chapter 7 – Swing Interfaces with Sorting and Searching	Chapter 7 Programming Assignments 1 - 4 (individually) and #5 as a group.	56
County Programming Exam 3			100
Marking Period 4			
4.8	Chapter 8 – Writing Data to a Sequential Data File	Chapter 8 Programming Assignments 6, 7, 8 and 9.	44
4.11.1	Introduction to Cloudscape	SQL Detective Game	20
4.11	Chapter 11 – Accessing Databases Using JDBC	Chapter 11 Programming Assignment 4 on page 11.86.	41
Final County Programming Exam			150
Final Project	Code Ruler – IBM Game using Java in the Eclipse IDE	County-wide competition	